

IN THE CLAIMS

We claim:

1. A data management system for supplying data to selected ones of identifiable seats comprising:

- 5 (a) a plurality of data sources;
(b) at least one power source;
(c) a network controller capable of managing the plurality of data sources;
10 (d) a seat-to-seat cable having therein data communication lines and power supply lines whereby both data from said plurality of data sources and power from at least one power source are routed by said network controller to selected ones of said identifiable seats.

15 2. The data management system of claim 1 wherein said data and said power are routed to an integrated seat box that is disposed proximate to a group of said identifiable seats, said integrated seat box being capable of converting
20 at least one of said data and said power to a form useful to a passenger occupying one of said identifiable seats.

3. The data management system of claim 2 wherein said integrated seat box contains a plurality of independently
25 removable function modules.

4. The data management system of claim 3 wherein at least one of said removable function modules is selected from the group consisting of in seat power supply, data network
30 interface, audio, video, noise cancellation, telephony and combinations thereof.

5. The data management system of claim 4 wherein said in seat power supply module converts 115 volt, 3 cycle, AC power to 11-16 volt dc power.

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6. The data management system of claim 5 wherein said in seat power supply module includes an enable circuit whereby said 11-16 volt dc power is only provided to an outlet if a predetermined minimum threshold power requirement is

10 satisfied.

7. The data management system of claim 5 wherein said data network interface module is fault tolerant such that a failure at one seat box does not interfere with the normal

15 operation of successive data network interface modules.

8. The data management system of claim 7 wherein said data network interface module includes a power distributing physical layer that is galvanically isolated from a data

20 distributing microprocessor.

9. The data management system of claim 4 wherein said data network interface module effects a data transfer between a selected passenger and a head end controller.

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10. The data management system of claim 9 wherein said data transfer occurs in real time.

11. The data management system of claim 9 wherein said

30 data network interface module assigns a seat group routing tag to data originating with said selected passenger.

12. The data management system of claim 4 wherein said audio function module has an outlet for receiving a digital passenger control unit.

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13. The data management system of claim 12 wherein said digital passenger control unit contains an outlet for receiving a passenger's headset.

10 14. The data management system of claim 13 wherein said passenger's headset includes a microphone enabling two way telephony communication.

15 15. The data management system of claim 14 wherein said digital passenger control unit contains a keyboard and said audio module supports telephony whereby said passenger may communicate with a public switch telephone network via a combination of said headset and microphone.

20 16. The data management system of claim 14 wherein said telephony module interfaces with a cradle effective to deactivate an antenna of a cellular telephone, but permits a passenger to communicate with a public switch telephone network via said cellular phone and said telephony module.

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17. The data management system of claim 4 wherein said seat-to-seat cable interconnects a plurality of said integrated seat boxes both to others of said integrated seat boxes and to a head end portion.

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18. The data management system of claim 17 wherein said seat-to-seat cable includes at least one of said power supply lines and at least one of said data communication lines electrically isolated from each other and disposed
5 within a common overall jacket.

19. The data management system of claim 18 wherein said communication line is capable of transmitting at least 400 megabits per second of data.

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20. The data management system of claim 19 wherein said at least one data communication line comprises four insulated copper wires twisted together.

15 21. The data management system of claim 19 wherein said at least one power supply line supports 3 phase AC current, a ground and a neutral.

20 22. The data management system of claim 19 installed on an aircraft wherein said head end portion includes a master control unit effective to conduct aircraft power to said seat-to-seat cable, a network controller effective to control the flow of multiple streams of data between selected devices and selected passengers and an internet
25 server capable of controlling the flow of multiple streams of data between a mass storage unit server and selected passengers.

30 23. The data management system of claim 22 wherein said mass storage unit is on said aircraft and contains at least 18 gigabytes of storage.

24. The data management system of claim 23 further including an in-flight workstation interfacing with said head end portion effective for at least one function selected from the group consisting of disabling defective integrated seat boxes, disabling the use of integrated seat boxes connected to incompatible personal devices, disabling the delivery of video and disabling the delivery of power.

10 25. A passenger outlet interface for use by an airline passenger comprising;
an enable light to indicate whether power is available to said passenger;
first and second plugs for providing power to said
15 passenger, when said power is available;
third and fourth plugs for enabling said passenger to access power, when said power is available;
fifth, sixth and seventh plugs for the transmission of low speed data to said passenger; and
20 eighth and ninth plugs for, in cooperation with said seventh plug, the transmission of high speed data to said passenger.

26. The passenger outlet interface of claim 25 wherein
25 said first and second plugs comprise a power and a ground for providing said passenger with from 11 volts dc to 16 volts dc.

27. The passenger outlet interface of claim 25 wherein
30 said fifth, sixth and seventh plugs are coupled to an RS-232 port.

28. The passenger outlet of claim 28 wherein said seventh, eighth and ninth plugs are coupled to a universal serial bus.

- 5 29. A cable forming an interface between said passenger's personal computer and said passenger outlet interface of claim 28.